THE

HORTICULTURIST.

VOL. XVIII.....FEBRUARY, 1863.....NO. CC.

Hints on Pear Culture.—II.

In the October number of 1862 we announced our purpose to furnish a series of articles or "Hints" on Pear culture, in the same style as our "Hints on Grape Culture." We shall make no attempts at fine writing, but give in plain and simple words a description of the best modes of cultivating the Pear, according to our own experience. We may or may not present some points of novelty; that is a matter of less importance than making clear some mode of culture which will insure a certain and reasonable amount of success. We shall not stop long to discuss mooted points, but leave all such for concluding remarks, unless some real necessity shall arise for a different course. We adopt this mode of treatment, because we know the novice will learn most rapidly by having his attention fixed upon one thing at a time, and by being carried along systematically, step by step, until the full bearing tree is formed. The learner will do well to bear this in mind, and endeavor to master each operation as it is presented to him. Any thing that may happen to be obscure, we shall be ready at all times to make plain. Those already versed in Pear culture will pass these "Hints" by, or read them from motives of curiosity, or, it may be, for the purpose of criticism. They are designed for beginners.

Our intention, at first, was to begin with the standard Pear; but, on further reflection, we have determined to begin with that best abused of all trees, the *Dwarf Pear*. There has been some discussion as to what constitutes a *Dwarf Pear;* but it presents no difficulty to our mind. Good usage determines the meaning of a word; and under this rule a Dwarf Pear is one that has been worked on the *Quince*, the effect of which is to dwarf the *habit* of the tree; and it is equally a dwarf, therefore, whether the branches start one foot or four feet from the ground; the essential habit of the tree remains the same in both cases. There is something specific, determinate, and well understood in this use of the word. A standard Pear, on the contrary, is one that is worked on a *Pear* stock. It is true that the latter, by a specific mode of treatment, may be made to assume a diminutive size, and be brought early into bearing; but we can not apply the word *dwarf* to such trees generically, because the stock is not concerned in producing this condition, as is the case with the quince; it forms an exception to a general rule. We will mention, by way of illustration, that we have brought standard pears into bearing at the third year from the bud, and at the age of ten years they were hardly 12 feet high, in

the mean time having yielded good annual crops; but we never thought of calling them dwarf pears. The term *dwarf pear* has become too intimately associated with the quince stock to admit of a change; when used by itself it must be held to apply to the quince. When we come to treat of the pear on Thorn and other stocks we shall find an adjective to meet the necessities of the case; at present we only wish to define the sense in which we use the word, and to answer some inquiries as to what a dwarf pear is.

There has been a prolonged and somewhat angry discussion as to whether the pear will succeed on the quince, much of this discussion, however, having a bearing on the *pecuniary* success of dwarf pear culture. We shall not stop long at present to discuss this question, interesting as it is. It is important, of course, that every man should, as far as possible, assure himself of the success of an enterprise before he embarks upon it; but we do not fear that our readers should take our judgment upon this matter. Looking to our own experience, and to widely extended observations under a variety of circumstances, we are led to conclude that the dwarf pear may be successfully and profitably grown in most sections of our country, provided the proper conditions are observed. We would not, however, press dwarf pear culture upon any man, either for pleasure or profit, unless he is willing to give to the subject a reasonable amount of labor and attention, especially while the trees are in a state of formation. To the amateur the dwarf pear is indispensable. Profit, to him, is a matter of secondary consideration, his chief objects being the formation of a handsome tree, the speedy production of large and beautiful fruit, growing a large number of varieties on a limited surface, and testing new kinds within a short time. This part of the subject may be treated of more fully at another time.

Let us now turn to the *soil*. The soil best adapted to the dwarf pear is a somewhat heavy, sandy loam, abounding in vegetable matter. In such a soil the greatest degree of perfection will be reached. It will also do well in a clay soil, but we doubt whether the same degree of high flavor is attained. It may seem rather a contradiction to say that it will likewise do well in a light sandy soil; but this is so, provided such light soil abounds in vegetable matter. For instance, the dwarf pear is grown in much perfection on the light soils of Long Island, that are rich in vegetable matter, and this is the case with a large proportion of them. To use terms in their ordinary acceptation, which will be best understood by most readers, the soil for the dwarf pear should consist largely of loam, sand, and carbonaceous matter in some of its forms of muck, charcoal dust, rotten leaves, decomposed vegetable matter, etc. The proportions may be in the order in which they are named. Many soils possess more or less of these elements; where they are absent they can in most instances be added. In the garden, where the dwarf pear is mostly grown, any deficiencies in the soil can easily be added in most cases; and in many cases it is possible to amend soils even on a large scale. The nearer the soil is made to approach the conditions we have named, the more satisfactory will be the results obtained, especially in regard to the quality of the fruit. Those who have been constant readers of the HORTICULTURIST, can not fail to have noticed that we have frequently, during the past three years, spoken of the importance of muck to fruit culture; it is an axiom with us, and we take occasion to repeat it emphatically. We consider muck, or carbonaceous matter in some form, indispensable to the highest degree of excellence in fruit. If any body shall tell us that he can grow good fruit without carbonaceous matter in the soil, we may not deny it, but we shall certainly tell him in reply that he can grow much better fruit with it; indeed, it may well be doubted whether much, if any good fruit is grown without its aid. We think a proposition of that kind susceptible of easy demonstration. Many soils contain some of it, but comparatively few, except at the West, have enough. It may be added to most soils with decided benefit, whether the object be to grow fruit or the ordinary field crops. We were led to attach so much value to carbonaceous matter as

the result of many years of observation directed specially to this object. It must be understood, however, that a soil may sometimes contain too much of this matter, and the trees be over-stimulated in growth; the wood, in consequence, may ripen imperfectly, and be winter killed. This is often seen in the rich carbonaceous soils of the West, as we have remarked on former occasions. It is better, however, to have too much than too little of it, because the evil of a superabundance is more easily remedied than that of a deficiency. Let each one, therefore, supply himself abundantly with carbonaceous matter, in the form of muck, charcoal dust, rotten leaves, or any similar matter within his reach.

The reader will probably be a little curious to know some of the results that may be expected to flow from the use of muck. Briefly, it will be found to conduce to the general health of the tree; to contribute to its fruit producing qualities; to add to the warmth of the soil, and promote the formation of secondary or fibrous roots; to add size, beauty, and excellence to the fruit. We think this muck concerned in adding to the quality of all kinds of fruit. These are some of the results obtained from its use. The particular *modus operandi* will be explained hereafter. It must not be supposed, however, that muck is a panacea, or performs other than a perfectly natural office, any more than barn-yard manure does. This would be to attribute to it virtues which it does not possess. It is, however, an important element of fertility widely distributed by a bountiful Nature, but too much neglected by man. If wisely used, it would add many millions of dollars to the productive wealth of the country. With the inexhaustible supplies of it scattered all over the country, there is no reason why a single acre of land should ever become barren. And with this remark we close for the present.

RESIDENCE OF LINDLEY M. FERRIS, ESQ., NEAR POUGHKEEPSIE, N. Y.

BY GEO. E. WOODWARD,
Architect, No. 37 Park Row, New York.

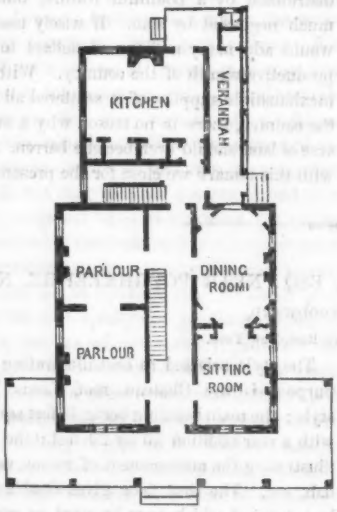
The residence of Mr. Ferris, of which a view is given in our *frontispiece*, is located south of the city of Poughkeepsie, and almost or quite within its suburbs. The surrounding estate, of 150 acres of handsomely rolling land, possesses all the attractions of beauty and fertility so generally awarded to the finer portions of Dutchess county. In the immediate vicinity are some of the highly finished and well-kept country seats which adorn this portion of the Hudson, and make up the attractions which taste and refinement always add to country life.

The object aimed at in the design of this house, was that of a substantial and commodious mansion, suited to the requirements of a large family, and that should express its purpose in the simplest manner at a moderate expense. It was therefore desirable to avoid all costly irregularity of form, and all the fanciful varieties of gimcracks.

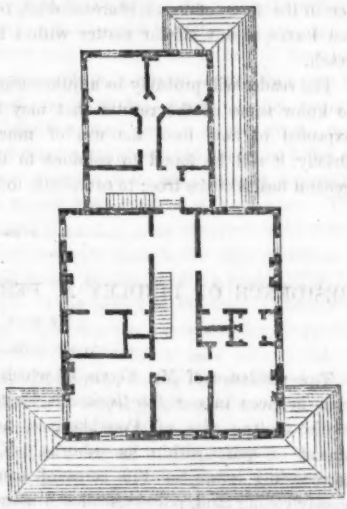
The style selected as best illustrating this purpose is the Chateau roof, Louis XV. style; the main building being 43 feet square, with a rear addition 25 by 29 feet; the plan illustrating the arrangement of rooms, verandah, etc. The first floor gives double parlors, (one of which may be used as a bedroom or library,) a sitting-room or reception-room, dining-room, and a large kitchen, with necessary closets, an inclosed verandah, water closets, etc. The second floor, main building, gives four large bed-rooms and two smaller rooms for other purposes, and in the rear are four servants' rooms and a bath-room. The attic story, main building, has now five rooms, finished with closets, and two rooms more can be added by putting up two partitions. These upper rooms, in a roof of this character, are cool, well ventilated, well lighted, and agreeable in warm weather, there being roomy air chambers between the attic ceiling and the

upper roof, and also between the walls of the rooms and the outer wall of the house. There is but little difference in the value of these rooms and those on the floor below, except convenience of access.

The house is built of brick, in a first class manner, the lower roof slate, the upper one being tin; is thoroughly finished throughout, and is in all respects a convenient, durable, and commanding structure, giving the largest amount of room in a desirable and attractive form, with the most economy of means. It is situated on a knoll overlooking



FIRST FLOOR.



SECOND FLOOR.

all the surrounding grounds, which include a number of other fine sites, one or two of which, we think, even more desirable than the one selected. It is not, however, an easy matter to choose one from a dozen sites, each almost equally good.

A new road is now being laid through these and the adjoining premises, to connect two of the principal drives southward from Poughkeepsie, which, when completed, will add a new attraction to the beautiful suburbs of this city. The views from the grounds, more particularly from the top of the house, are varied and extensive. The mountain panorama, which sweeps three-fourths of the horizon, beginning with the Fishkill mountains, and ending with the Catskills, is exceedingly fine. The eastern view embraces the Vassar Female College, the noble gift of Matthew Vassar, Esq., to the cause of female education. In the foreground and middle distance are the rich rolling landscapes of Dutchess and the fertile hillsides of Ulster counties, the glittering spires of Poughkeepsie, the lordly Hudson, and southerly are seen the famous Beacons and the Highland Pass,

> "Where Hudson's wave o'er silvery sands
> Winds through the hills afar."

INTERIOR VIEW OF THE "BRIGHT" NUT.

BY FOX MEADOW.

History furnishes the fact, that all subjects brought before the public mind, when of a character varying from the commonly accepted opinion of the day, no matter how clearly a truth may be represented and demonstrated, meet with little favor, and up jumps instantly a whole host of opposition, and it fights to the "last ditch," not in vindication of a truth, but for an antagonistic prejudice—a support of some *theory*, because it is such as they have advocated, or it is that in general acceptance; and hence, many great and glorious truths are buried in the cold earth with the minds that gave them birth, simply because of man's common practice of fighting against every thing he has not been taught either at his mother's knee, or by his school-teacher.

No greater proof of this species of blind prejudice can be afforded than in the "Nut" sent us to "crack" from Philadelphia by one whom the reading public are led to *suppose* is Mr. Bright. This gentleman seems to be quite full of something; and this something, Mr. Editor, has nearly blinded him. We are confident he must be nearly blind, and so pity his condition. He seems to be fond, though, of our "Interior Views," for he has invited us to take another, to which we kindly consent for his benefit, and hope also for the benefit of our readers.

Before this gentleman reads any more of our "Interior Views," we beg to offer him a little advice: to put on a pair of spectacles of good magnifying power, which will, perchance, enable him to read *correctly!* What troubles this gentleman so much is our compost; and there is one of the ingredients he thinks a "defect in his composition, which renders his method of making borders open to *serious* objection." This gentleman, whom we take to be short-sighted, tells your readers, Mr. Editor, that Fox Meadow makes his vine borders of loam, sand, and *leaf-mould;* and it seems that it is chiefly "to the large quantity of *leaf-mould* that objection is taken." Now the whole of this wonderful "nut" can be cracked in a very few words. We never stated that we used "leaf-mould" *in our* compost. We never stated that we used "leaf-mould" *in our* borders. Neither is "leaf-mould" given as a *component* of the compost we have recommended. "Substitutes," however, are intended, the nearest being most desired; and as conditions control results, men generally use the best under the circumstances in which they are placed.

Fox Meadow don't make his vine borders of loam, sand, and *leaf-mould;* but Fox Meadow does use as a compost, and does recommend, SAND, SANDY LOAM, AND MUCK. Now we do hope, Mr. Editor, that you will have the last sentence printed in good large capital letters, because you must be aware of the great assistance large type is to persons very near-sighted. Your correspondent has shown much ability in his "nut" article, but it lies in his power to grossly pervert the *sense* and *wording* of our statements. Where do we make "little account of bones, lime rubbish, charcoal, and manure, as highly esteemed by others?" Nowhere but when placed *in* the border. Where have we recommended the use of *large quantities of leaf-mould?* Nowhere can such inference be attached to the name of "leaf-mould," only by a blind perverter of truth and common sense! When "muck" can not be got we would use the best substitute, and the latter is charcoal or leaf-mould; and if either of these can not be got, use "sand and loam alone."

If we have labored to show any thing in our articles, it was the evil tendency of *decomposing* matter in vine borders. The next point was to show the necessity of the border being open and porous permanently, and at the same time to so change the formation of the vine's roots as to cause them to entirely fill the space of ground prepared for them. This was the gist of our whole

argument. The bulk of the material we use is *sand*, and a sufficiency of carbonaceous matter placed *in* it to retain in the sand such elements of food as may pass from the *top* of the border *downward;* therefore the writer has given himself a vast amount of useless trouble in quoting authors to prove the *possible* bad results of ingredients *we make no use of!* It is true that we have not advocated the use of bone, superphosphates, and "our special fertilizer" *in* the compost, because we think just as Mr. Bright does, when he says that "bone" only answers the purpose of so much sand; and as the latter is decidedly cheaper than "bone," we wish our readers to understand the "relative properties" of the materials, and so use the cheapest. Perhaps Mr. Bright considers *muck* and *leaf-mould* identical. We, however, do not; and if *he* does he certainly has tumbled into a gross mistake. Muck, as it is termed when lying in immense quantities in swamps, *is decomposed vegetable matter, with the partial exclusion of the air*, and, consequently, a large proportion of its "carbon" remains in the *exact* condition to serve and answer the purpose of charcoal. This specific fact, answered, perhaps, more scientifically, would be owing to the insufficiency of oxygen supplied to unite with all of the carbon. In this simple fact lies the difference between muck and humus, so commonly confounded.

"Humus" is the substance formed from solid animal or vegetable matter by decomposition immediately under the action of the air, which fact renders the chemical properties much different in the two cases of decomposition. We claim that muck, after being freed of its acid by the action of frost, is equal to charcoal, and we prefer it in vine borders to the latter, because its practical results or products are better. We find that, after being incorporated with sand and loam for *seven years*, it appears in as good a condition as it was the first day it was put in our borders.

Now we certainly do prize this muck very much, and to this extent: that if a horse-load of rotten dung cost one dollar, we would freely pay fifty cents for the same quantity of muck.

The quotations from Dr. Lindley, Thomson, etc., are "bits" picked out to answer the purpose of Mr. Bright, and so "fiddle out" any tune he thinks proper. The original articles quoted have reference to the absurdity of digging deep holes for vine borders, and then filling them up with a lot of humus on wet, cold bottoms; also to the injurious effect of using half-rotten wood and leaves, if collected and used in such a condition. In fact, these references, when read with their connecting sentences, mean and say just what we have already said in our articles, and just what any practical gardener would say if he had lived in the world long enough to know what he was talking about. In England, as here, the practice has been, *and now is*, to push almost any thing that can be got into vine borders, either in a state of decomposition, or to be there decomposed.

As to those beautiful lands of the West, rich with organic matter, causing "disease and death" to plants, we know but one thing of them, and that is, of the almost incredible quantity they annually produce! Certainly the carbonaceous matter plays a very important part for the benefit, not only of those in this country, but also for millions of mouths in different parts of Europe!

We wonder what Dr. Lindley and some other "Drs." would say, Mr. Editor, if they saw our garden of muck! These gentlemen, who carry theories in their pockets, would be utterly astounded to see all the things we grow on a bed of muck. Norway Spruce, three feet high, planted three years last spring, stand now from twelve to sixteen feet high, and eight and nine feet through them; Pears on Quince, in three years, (two years old when planted,) measure, some of them, ten feet high and eight in diameter. These not only grow, but they fruit equally well. The poor old Vicar of Winkfield fills out his sides with this rich carbon (so destructive to plants) to such

an extent that we never saw a "Vicar" look so jolly before. Small fruits yield in abundance. The strawberry remains evergreen during the winter, and the Brincklé Orange Raspberry gives us such canes and fruit that we never before saw their equal; and the flavor—well, Mr. Editor, you ought to come up in the season and *taste*, for people say you are an excellent judge of fruit (!) We grow grapes (hardy) on this muck also, and what is very strange, they grow and fruit most beautifully! It is really a wonder they don't die on this bed of humus! We think if that gentleman in Philadelphia who said so much about "out-door grapes"—we mean the gentleman who never could nor ever did succeed in "making it pay"—had got about one thousand loads of our rich carbonaceous muck plowed into one acre of his miserably poor, starved grape-vines, the fruit of the grapes would not have been quite so sour as they were; for we think this muck must surely contain a goodly proportion of the celebrated "tartaric acid," because all the vines, when they once touch it, *are sure to fruit.* We need scarcely add that all the different varieties of vegetables grow on this muck soil equally well.

But we are forgetting the grape question; and as one grain of practical evidence is worth a ton of theory concerning muck or any thing else, we will now give a few facts as the results from the exotic grape grown in SAND, SANDY LOAM, AND MUCK. In the first place, the graperies of these gardens, which comprise some 1,200 lineal feet of glass, never knew what it was to have a natural season of growth; that is, the vines have always been early forced into growth, and during the severe winter months of the year. The vines have been forced now for seven years, and our fruit is generally ripe in April. We have cut in March. We never sacrificed the principal crop of a vine for the purpose of getting an extra sized individual bunch; yet, under these circumstances, we have cut bunches, and exhibited, weighing, (can produce proper vouchers,) Hamburghs, 5 pounds; Chasselas de Fontainebleau, 3½ pounds; White Frontignan, 3½ pounds; Barbarossa, 6 pounds; Muscats, 5 pounds. Early last April we sold at Taylor's Saloon, on Broadway, many bunches of Cannon Hall Muscat weighing from 3 to 4 pounds. The other day we left at the office of this Journal some wood from the "leaders" of these vines—Hamburghs and Chasselas—for the editor to look at, as *evidence of the effect of "muck" after seven years of hard forcing!*

We offer this not as an evidence of any peculiar skill; not that we can command or do more than others can do; not for any vain, silly boasting; but as evidence to substantiate what we are talking about, and of the good results derived from a rich carbonaceous MUCK properly prepared, and properly proportioned with SAND and SANDY LOAM. Let us see now how stands our "Nut" question: Muck with *facts*, and muck with *theory*.

Now suppose we just see what "Inside, detached, divided borders" have produced: First, an immense deal of "blowing," to clear the way, we suppose, for the wonderful products that were to follow. In 1860 Mr. Bright's first edition of his book appeared. On page 10 we read: "This work was originally intended to be simply a handbook of instruction in the management of grape vines in pots, and the system we advocate has chiefly grown out of our experience in that kind of culture." Now the system that a man advocates and wishes others to adopt, reason tells us ought to be a good one; and as good results from grape vines will chiefly depend on the soils in which they grow, let us just see what Mr. Bright's compost is. On page 19, we read: "The leading requirements of the vine for the formation of roots and wood, are carbonaceous loam, alkaline phosphates, silicate of potash, carbonate of soda and lime, and a good proportion of *nitrogenous* manure. Our method of making compost for vine borders, so as to combine the requisite ingredients in the proper proportion, will be given in another part of this work." On page 65 we are given the compost for

borders, and from which we are told, "*The highest success will be attained;*" and this compost is, "Good loam from the surface of a well-cultivated field. Let this loam be mixed with one-third its bulk of sod from an old headland or pasture. Add to about 21 horse-loads of this mixture, about four bushels of good water-slacked lime, four bushels of unleached or ten bushels of leached wood-ashes. Now add to this compost of about twenty horse-loads, say five one-horse loads of well-rotten stable manure, horse and cow dung, and ten horse-loads of rotten rock and sandy road-scrapings from a turnpike. If you choose to add ten to twenty bushels of finely crushed bones, or one or two barrels of good super-phosphate of lime, or *our special fertilizer*, it will be useful, although the *bones will serve little other use than a substitute for sand;* and the super-phosphate of lime or fertilizer may be better applied upon the surface of the border when needed. Let your vines at first rest in good natural soil, *well manured*, and they will form plenty of vigorous wood; afterwards apply 'special fertilizers,' as needed, to produce and perfect the fruit, *and the highest success will be attained.*" "Put no carcasses of animals, offal of slaughter-house, night soil, *guano*, or any rich animal matter, or other stimulating manure, into or under the border, beyond what we have advised; although, if the stable manure be poor, it may be made a little richer by the addition of a *bag of guano,(!) without injury.*" The whole of this is to be turned and mixed, put into the border, and mulched. Mulched with what? "*Two or three inches of* HALF ROTTEN LEAVES!" Now it must be remembered that, to *begin with*, Mr. Bright has said that the vines are to rest on "A good natural soil *well manured*," (page 66,) and the compost to go on this is:

To 20 loads of loam and sods,
5 loads of rotten dung,
10 " " " rock or road-scrapings,
20 bushels of bones, or "special fertilizer," or super-phosphate,
10 bushels of leached ashes,
4 bushels of lime,
1 bag of guano.

It will be seen, from the articles named, that one-fourth is *rotten dung*, and to which 40 bushels of "tid-bits" are to be added.

In the case of the guano, Mr. Bright strictly cautions his readers to use *no guano*, and then almost in the same breath tells his readers they may use it "without injury." In reference to the "bone," it is only just to say, that Mr. Bright leaves it optional with his readers which they use, "twenty bushels of finely crushed bones, *or* one or two barrels of good super-phosphate of lime, *or* our special fertilizer." Now, according to the inference of Mr. Bright, the one is equally as good as the other; and as he has just now stated, that "bones" in the border "will serve little other use than as a substitute for SAND," he unwittingly admits that *his* "special fertilizer" will answer a no better purpose. So that this great fertilizer, which the horticultural world were led to suppose contained such elements for *fruiting* the vine as were never before known, and including the celebrated "tartaric acid," is, after all, of no better use in the vine border than a bag of SAND. Now, after the vines are planted in this compost of Mr. Bright's, he directs that the border shall be topped off (mulched) with "two or three inches of HALF ROTTEN LEAVES."

Don't this writer know, that "the enrichment of the soil in organic matter appears to be the cause of *disease* and *death* to many plants!" (Klippart on the Wheat Plant, p. 355.) Don't Mr. Bright know what William Thomson, gardener to the Duke of Buccleuch, Dalkeith Park, Scotland, says about leaf-mould and wood earth? "In every morsel of decaying wood there are *spores of fungi* that are certain one day to destroy the vigor of the vines, and in many cases to kill them altogether!" Again this William Thomson adds, "Leaf-mould, when reduced to black earth, may with advantage be added to any compost for vines, but NEVER in a HALF DECAYED STATE." O Bright! what a pity it is you advise *half rotten leaves* to contaminate *your* border even by their touch!

But, perhaps, Mr. Bright don't mean *half rotten leaves*, although it is so printed in his book. Perhaps he means "leaf-mould" *thoroughly decomposed* (?) But, can Mr. Bright tell "how long a period of time it would require to decompose it, so that the microscope would fail to reveal the *seeds* (?) of fungous growth?" "What process of decomposition should we adopt, and when would it be complete?" O Bright! have you never seen what Dr. Lindley says about leaf-mould? "Even when well decomposed, and converted into humus, it will cause the destruction of delicate fibrous roots." Why do you use them HALF ROTTEN? "It looks as if the case must be decided against you." But then, friend Bright, if you should "own up that there is danger in HALF ROTTEN LEAF-MOULD when placed in grape borders, it will not be the first time an eminent grape grower has fallen into an error in border making."

In order to do Mr. Bright full justice in this matter, it becomes our duty to refresh our readers' minds with the fact that Mr. Bright has issued *two books* on grape growing; one in the year 1860, from which we have taken our quotations, and another in the year 1861. In 1860 we are told the best compost for vine borders is, loam and sods, rotten dung, bone *or* "our fertilizer," lime, wood-ashes, rotten rock, guano, to be placed on a good soil well manured, and to be finished off with *half rotten leaves*. In 1861 comes the *second* book, and with another year of practical (!) experience which reveals to the world an astounding and important fact; that he ignores and throws overboard the system of border making he so strenuously advocated a little more than a year previous; and it is to this recantation of faith that Mr. Bright calls our attention in his book on composts. He says: "In the second edition of my work on Grape Culture, p. 89, will be found the following passage: For nearly two years past we have formed all our large grape borders, especially those partially outside the house, of half good loam from an old pasture, and nearly half road sand or fine soft rotten rock, with the addition of a little pulverized lime rubbish from old walls and ceilings, and a little fine bone dust." Here our friend Bright has very craftily omitted the connecting sentence in this paragraph quoted; but we, however, will add it: "In small inside borders, when the moisture is under perfect control, we might use a little *well-rotted dung* and *good* LEAF-MOULD!"

To be serious, Mr. Editor, is it possible that any man in his normal condition ever wrote such a conglomerating host of absurdities and self-contradictions as are penned in this book just quoted? Is it possible that a man endowed with common sense could have read in our articles *leaf-mould* for *muck*, and then, while laboring under this evident delusion, go and hunt up all the authorities he could get hold of to prove the destructive tendency of an ingredient *he uses himself, as well as recommends others to use!* For nearly two years past, (second edition, p. 89,) says Mr. Bright, he has formed his borders of half loam, and nearly half road sand, with pulverized lime. Now, there were no *two years* elapsed between the issuing of the first and second editions; not a great deal over one year; consequently, when Mr. Bright states in his first edition his *certainty* in the good results of rotten sods, fine bone dust, "our special fertilizer," well-decomposed stable manure, lime, guano, and climaxed with HALF ROTTEN LEAVES, he must, according to his own logic, have given his readers a false statement, or the statement on page 89 must be wrong. We visited Mr. Bright's nursery the latter part of April, 1860, purposely to *see* some of the wonders which his book speaks of; but, lo! there was not a single vine planted out on his place, neither in detached borders nor any other sort of borders under glass; yet the book was out promulgating—what? a mere *theory!*

When a man talks at random in this way, who can place any confidence in what he says? When a man is confident one day that his compost is all that is needed, and then contradicts it in about 12 months, it is quite sufficient to convince any rational mind that there is *no experience* in the matter, but a lot of jumbled up theories; a fit effusion for some empiric of medicine, who has a smatter-

ing of horticulture; who, through quackering with the two, has produced a jumble of the brain. No practical gardener would ever have written such a book of discrepances. No practical gardener would ever have invited us to CRACK SUCH A NUT.

"Policy" admonishes friend Bright to hold his peace until he brings his bunches of grapes as the *weighty evidence* of his theory. Is there no evidence, ask our readers, in favor of "detached, divided borders?" Has "Fox Meadow" any experience with them? Has "Philadelphia" any *experience* on this subject? Are they being pulled down there as failures?

(To be Continued.)

[We supposed that Fox Meadow would have taken this "Nut," and turned it around delicately, to find a weak place where it would open easily; but, so far from that, he has used a sledge hammer to crack it at a single blow. We wait now to see how Mr. Bright will gather up the fragments. In our opinion, there is a good deal in this muck question, if only properly brought out. In cracking nuts, we hope neither party will crack too hard jokes. In regard to the wood left by Fox Meadow, we must say that we never saw any better, and seldom any as good. It is about an inch in diameter, very close jointed, of a bright color, fine grained, thoroughly ripened, and with large, round, well-developed buds. We purpose converting one of these canes into a walking stick.—ED.]

THE DAHLIA.

BY A SUBSCRIBER, BALTIMORE.

MR. EDITOR,—Your correspondent in the December number of the HORTICULTURIST gives us a very able article on the Dahlia, and his requirements for the points of perfection are very correctly and lucidly stated. But I much doubt whether one in twenty of the prize flowers come up, in all points, to the standard laid down for a perfect flower. Therefore we must be contented with those approaching *nearest* in feature to the desired model.

Some years since the following rule was laid down for the action of the judges of some of the English shows:

That *form* must have prëeminence; then *color*; and, lastly, *size*. The relative proportions of these criteria are as follows:

Form, 3.
Color, 2.
Size, 1.

Thus a flower having form and color would be judged superior to one having color and size, the relative proportion being as five to three. The perfection of form is the nearest approach to a hemisphere, and the outer edges forming a true circle. Occasionally, however, you will find a flower going beyond the first requirement of this form; as, for instance, that fine old variety, "Lollipop;" it forms two-thirds of a ball, with a good height in the center, and a fine rounded shoulder.

It is evident that the large number of prize flowers exhibited in the winning stands every season in England for the last twenty years, can not all come up to the high standard of excellence as laid down; so the judges must give the awards to those flowers containing the largest number of the points constituting perfection.

As you request additions to the excellent, but limited list published at page 563, I give the following as best the past season in a collection of 150 varieties:

Beauty of Hilperton, (Turner, 1861.)
Madge Wildfire, " "
Marquis of Bowmont, (Dodds, 1860.)
Carrie Emmons.
Marie Rougier, pure white, superior to Vesta.
Mrs. Dodds, (Dodds.)
Umpire, (Turner, 1861.)
Andrew Dodds, (Keynes.)
Mrs. Boshell, (Rawlings.)

Princess of Prussia, (Pullen.)
Neville Keynes, (Keynes, 1860.)

Fancy Varieties.

Norah Creina, (Green, 1861.)
Starlight, (Keynes, 1861.)
Leopard, " 1860.
Summertide, (Turner, 1861.)
Talisman, (Cailloux.)
Dandy, (Keynes, 1860.)

Of the older varieties, the following were the finest:

Chairman,	Baron Alderson,
Vesta,	Charles Perry,
Loveliness,	Grand Duke,
Lollipop,	Prëeminent,
Magnificent,	Lady Popham,
Dr. Bois Duval,	Gloire de Kain,
Triomphe de Roubaix,	Mad. Zahler, (1847,)

Pouliditto.

As I have seen nothing in the HORTICULTURIST relative to the past season's exhibitions in England, perhaps a hasty resumé of two of these annual shows, the Metropolitan and the Royal Society, held in September, will not be uninteresting. It is copied from the *London Florist and Pomologist*, for October.

At the Metropolitan (Crystal Palace) exhibition there were offered six prizes for from twelve to forty-eight blooms. For these premiums there were twenty competitors. The names of 180 varieties were published, some sorts being in the winning stands three or four times.

At the Royal Society's show, five prizes were offered. There were seven competitors, and the names of 126 flowers published.

To bring the list of the flowers within bounds, none are given in the following list except those named three times:

Lord Palmerston,	8	Lady Elcho,	4
Lord Derby,	8	Sidney Herbert,	4
Chairman,	8	Model,	4
Beauty of Hilperton	6	Madge Wildfire,	3
Earl of Shaftsbury,	6	Sir Geo. Douglass,	3
Lady Popham,	6	Hon. Mrs. Trotter,	3
Golden Drop,	6	George Brown,	3
Jenny Austin,	6	Admiral Dundas,	3
Umpire,	5	Goldfinder,	3
Cherub,	5	Mrs. Boshell,	3
Norfolk Hero,	5	Marquis of Bowmont	3
Juno,	5	Lilac Queen,	3
Pioneer,	4	Pandora,	3
John Keynes,	4	King of Sweden,	3
Criterion,	4	Mrs. C. Waters,	3

Fancy Varieties.

Lady Paxton,	6	William Corp,	3
Harlequin,	5	Mrs. Crisp,	3
Queen Mab,	5	Garibaldi,	3
Pauline,	4	Elegans,	3
Mary Lauder,	3	Norah Creina,	3

These two lists of the most popular flowers in England will aid those adding to their collections the coming season.

Of Mr. Richardson's seedlings, only a portion of them bloomed with me this season. Carrie Emmons was considered an improvement upon Lollipop; Emma Cheney was also fine, with a fair footstalk; and Debbie de Gray exhibited extra fine, clear colors.

If a few more of your correspondents will send in their lists, and you, Mr. Editor, would add your roll of favorites, the Dahlia fanciers will be better posted for the next season.

[We are much indebted to "Subscriber" for his very interesting article on the Dahlia. Mr. Veitch's Dahlia points were well and clearly given, and none too high, though, as we have before remarked, comparatively few can be expected to come fully up to them. We would not lower these points in the least, for it is only by aiming high that we can hope to attain to the full standard of beauty. The points you mention, and their order, are precisely those we prescribed a good many years ago for the judges of the American Institute, as may be seen in its Transactions. The occasion which gave rise to these rules will illustrate the necessity and importance of something of the kind wherever rules can be applied. Justice to the exhibiter, however, requires that they should always be published. On the occasion alluded to, the judges, three noted Dahlia growers, reported that they could not decide which was the best of two stands of Dahlias, they were so much alike.

We told them we could not accept such a report, and requested them to make a further examination. This they did, and at the end of half an hour returned, still undecided, and requested us to decide for them, which we declined. We went to the stands, however, and, after a careful examination, saw that we, at least, could decide between the two stands. We then gave the judges the rules alluded to, explained their application, and in ten minutes' time the matter was settled. There may very naturally be a difference of opinion as to what should constitute the rules by which judges should be governed; but, when once clearly settled and defined, there ought to be no difficulty in their intelligent application. We are in hopes that Mr. Veitch's excellent article, and that of "A Subscriber," will lead to so much discussion as to settle the leading points of a good Dahlia, as well as of other flowers. Our own opinion is pretty well made up, and we should have no hesitation in prescribing a set of rules; still, we should like to have the subject fully discussed. As the result of a pretty extended experience in public exhibitions, we are led to conclude that justice, according to merit, is very imperfectly meted out. This is quite as often owing to imperfection on the part of the Society as of the judges. By all means let us have well-digested rules, and let them be rigidly applied by impartial and competent men. We are much pleased with your list of Dahlias, and are glad to see in it the venerable Madame Zahler, an old favorite of ours, which we should even now hesitate to omit in a list of a dozen, so many substantial points does it possess. You shall have our list before the spring opens; but we do not wish to anticipate others. We agree with you that Carrie Emmons is an improvement upon Lollipop, and that is great praise. We shall expect, in the course of another season, to hear Mr. Veitch admit, with his characteristic candor, that Emma Cheney has a very fair footstalk. You will also find Debbie de Gray very fine in both color and form. We shall be very glad to hear from you often.—Ed.]

REPORT ON GRAPES.

BY F. C. BREHM, WATERLOO, N. Y.

Seeing that model reports are in fashion, I herewith send you mine.

1. Delaware. Leaf, May 14th. Flower, June 28th. Color, Aug. 24th. Ripe, Sept. 13th. Sold for 30 cts. per pound.

2. Diana. Leaf, May 10th. Flower, June 23. Color, Aug. 22. Ripe, Sept. 20th. Quality, ext to Delaware.

3. Hartford Prolific. Leaf, May 14th. Flower, June 27th. Color, Aug. 30th. Ripe, Sept. 13th. Quality, ordinary.

4. Concord. Leaf, May 15th. Flower, June 26th. Color, Sept. 1st. Ripe, Sept. 25th. A showy grape. Quality poor; foxy.

5. Isabella. Leaf, May 10th. Flower, June 13th. Color, Aug. 14th. Ripe, Sept. 25th. Quality, good. One cane of Isabella grown last year, and fruited this year, seven feet two inches long, had fifty-two clusters, the whole weighing, after taking from the cane, thirty-one pounds. Was exhibited at the Seneca County Fair, and took the first premium and diploma. Sold on the spot for $4 00. Some of the clusters weighed fourteen ounces, and some of the berries measured 15-16 inches in diameter, looking more like Black Hamburghs than Isabella grapes.

6. Union Village. Leaf, May 12. Flower, June 26th. Color, Aug. 12th. Ripe, Sept. 14th. Quality, good.

7. Clinton. Leaf, May 12th. Flower, June 13th. Color, Aug. 15th. Ripe, Sept. 16th. Quality, good for wine.

8. Rebecca. Leaf, May 16th. Flower, June 27th. Color, Aug 14th. Ripe, Oct. 1st. Quality, best. Rather poor bearer.

9. To-Kalon. Leaf, May 13th. Flower, June 26th. Color, Sept. 1st. Ripe, Oct. 4th. Quality, good. Liable to rot. Good bearer.

10. Anna. Leaf, May 15th. Flower, June 27th. Color, Sept. 26th. Did not get perfectly ripe by Oct. 16th. Quality, said to be good. It is too late a variety for this latitude, unless it ripens earlier when older.

11. York Madeira. Leaf, May 14th. Flower, June 27th. Color, Sept. 1st. Ripe, Oct. 1st. Quality, said to be good for wine; not a good table grape, unless it improves.

12. Catawba. Leaf, May 15th. Flower, June 26th. Color, Sept. 6th. Ripe, Oct. 4th. Quality, good. Rather too late a variety for this climate.

The following varieties were more or less touched with mildew. Applied sulphur, dusted on, which effected a cure. Isabella, July 31st, showed signs of mildew. Sept. 6th, To-Kalon, Rebecca, Delaware, and Concord mildewed lightly, caused, I think, by the large amount of rain which fell in July and August.

[Mr. Brehm, we think, sent us the first of the model reports, the second being that of Mr. T., of Harlem, N. Y.; since which they have multiplied, but none too much either for us or our readers. We should be glad to have them extended to other things besides grapes. The cane of Isabellas must have been a beautiful sight. We observe in the *Seneca Observer* that you not only took the first prize for grapes, but also for the best garden; and you must allow us to add, that we are always pleased when any of our subscribers succeed in winning public praise. If you have the true York Madeira, you will find it quite as good as the Isabella; a little earlier, but smaller in bunch and berry, and not very productive. We should be pleased to have the plan alluded to.—Ed.]

ILLINOIS STATE HORTICULTURAL SOCIETY.

BY W. C. P.

The seventh winter meeting of this flourishing society commenced at Bloomington, on Tuesday, December 2d, and continued for four days. The attendance was larger, I think, than at any previous meeting, and perhaps of more than average ability. Besides our own well-known horticulturists, such as Overman, Phœnix, Bryant, Shaw, Shepherd, Whitney, and others, we had Dr. Warder, of Cincinnati, Professor Worthen, our State geologist, J. P. Reynolds, Secretary of the State Agricultural Society, besides an able representation of the agricultural press in Emery of the *Prairie Farmer*, Dunlap of the *Illinois Farmer*, Colman of the *Valley Farmer*, Bragdon of the *Rural New Yorker*, and Meeker of the *New York Tribune*.

An attempt was made this year, and partially carried out, to furnish an essay (or rather three essays—one for each of the three parts of the state) on each topic, to be followed by a discussion, both of the essay and of points which it did not touch; and although many essayists failed to be present, a good many brought or sent some very practical and valuable papers. There is no doubt, I think, that a continuation of this practice, which succeeded so well in the Yale Agricultural lectures, will prove of great utility in giving a more thorough and comprehensive character to our discussions.

The White Willow (*Salix alba*) was, although not on the bills, made a principal topic of discussion. The importance of rapid growing timber trees to the denizens of the great prairies of Northern and Central Illinois, has kept our more intelligent farmers continually on the watch for varieties which promised success. The Locust has been tried, but it sprouted badly in cultivated fields, and, worse still, was ruined by the borer. The Silver Maple, though a rapid grower, has

not proved entirely satisfactory. But in the White Willow, it is thought, has been found a tree which will grow with great rapidity from cuttings in dry or wet land, and even make a solid timber fence, sufficient to exclude cattle and horses, if not hogs and sheep. Mr. Huggins, of Macoupin county, exhibited two years' growth from a cutting, which was now 18 feet high and 13 inches in circumference at the base. Gentlemen present, who had visited fences in Ogle county, made by sticking down cuttings about 12 inches apart, reported that they had grown up into an almost solid wall of wood, surmounted by a wide spreading and lofty mass of wood and foliage of great beauty, and useful for fire wood, rails, and even posts and lumber for inside work. Englishmen and Germans present affirmed its various utility in the old world, especially in the English fens. Gentlemen from Delaware bore witness to its excellence in manufacturing charcoal for Dupont's powder, and in the enthusiasm of the moment, shingles and hoop poles were suggested. One wag even went so far as to inquire, in a private way, the capacities of this remarkable tree for sugar making!

Grapes were discussed. A good deal of difference of opinion was elicited in regard to the Delaware and Catawba in different localities, but both were retained on the lists, which I subjoin:

Table Grapes.—Hartford Prolific, Concord, Herbemont, Isabella, Catawba, Delaware.

Wine Grapes.—Catawba, Delaware, Herbemont, Norton's Virginia, Clinton, Concord, Rulander.

Other Fruit Lists.—Our state, owing to its great length north and south, embraces too great a variety to be included in one fruit list, and is accordingly divided into Northern, Central, and Southern Illinois, (better known as Egypt.) Two years ago seven districts were constituted for the purposes of more minute information, and full lists requested from these. One only was reported at this meeting, viz.:

Alton District Fruit and Tree List.

Apples, *Summer.*—Early Harvest, Keswick Codlin, Red Astrachan, Carolina Red June, Sops of Wine, Benoni, American Summer Pearmain.

Autumn.—Rambo, Wine, (Hay's Winter, Pennsylvania Red Streak,) Hubbardston's Nonsuch, Fameuse, Fall Pippin.

Winter.—Raule's Jannet, Winesap, Domine, Fulton, Jonathan, Gilpin, Willow Twig, Smith's Cider, White Winter Pearmain, Pryor's Red.

Pears.—Bartlett, Belle Lucrative, White Doyenné, Seckel, Louise Bonne de Jersey, Duchesse d'Angouléme.

Peaches.—Large Early York, Cole's Early, Troth's Early, Early Tillotson, Crawford's Early, Crawford's Late, Stump the World, Oldmixon Free, Morris White, White Heath, Bergen's Yellow.

Cherries.—Early Richmond, May Duke, Belle de Choisy, Late Duke.

Grapes.—Concord, Hartford Prolific, Catawba.

Evergreens.—Norway Spruce, White Pine, Austrian Pine, American and Siberian Arbor Vitæ, Red Cedar.

Deciduous, *Ornamental.*—Silver Maple, Sugar Maple, White Elm, Catalpa, European Mountain Ash.

Deciduous, *Ornamental and Timber.*—White Willow, Silver Maple, Black and White Walnut.

The Apple Lists for Northern, Central, and Southern Illinois were hardly changed. I subjoin the lists for "General Cultivation:"

Northern.—Early Harvest, Carolina Red June, Red Astrachan, Hightop Sweet, Keswick Codlin, Early Pennock, Duchess of Oldenberg.

Maiden's Blush, Lowell, Snow, Bailey's Sweet, Fall Swaar.

Winesap, Raule's Jannet, White Winter Pearmain, Domine, Jonathan, Willow Twig, Fulton, White Pippin, Roman Stem, Gilpin, Yellow Belleflower, Northern Spy, Tolman's Sweeting, Wrinkler.

Central.—Early Harvest, Carolina Red June, Red Astrachan, Hightop Sweet, Keswick Codlin, Hocking, Benoni, American Summer Pearmain.

Maiden's Blush, Rambo, Snow, Bailey's Sweet, Fall Swaar.

Winesap, Raule's Jannet, White Winter Pearmain, Domine, Jonathan, Willow Twig, Fulton, White Pippin, Roman Stem, Gilpin, Milam, English Golden Russett, Smith's Cider.

Southern.—Early Harvest, Carolina Red June, Red Astrachan.

Maiden's Blush, Rambo, Buckingham.

Winesap, Raule's Jannet, White Winter Pearmain, Limber Twig, New York Pippin, Yellow Belleflower.

Pear List.—"There are no snakes in Ireland"—no pear list for Illinois. The same is true of peaches and cherries.

PLUMS for general cultivation, Lombard.

For trial, Sloe or Red Chickasaw, Mirabelle, Huling's Superb, Coe's Golden Drop.

Of the smaller fruits I have not the data for a perfect list.

The Next Fair—Will be held at Rockford, Winnebago county, a region noted for its intelligent horticultural zeal, and will come off, probably, in the month of September. Last year the Society held its first fair at Chicago, which was, perhaps, the finest exhibition of the kind ever held in the West. These fairs are in addition to the Winter meetings for discussion, and, with them, are greatly promoting the horticulture of the Prairie State.

OFFICERS FOR 1863.

President, G. W. Minier, Mackinaw, Tazewell co. *Cor. Sec'y*, W. C. Flagg, Moro, Madison co. *Rec. Sec'y*, W. G. Ferguson, Rockford, Winnebago co. *Assist. Sec'y*, R. H. Fell, Bloomington, McLean co. *Treasurer*, Samuel Edwards, Lamville, Bureau co.

Vice-Presidents.—At large, O. B. Galusha, Lisbon, Kendall co.; 1st dist. Jonathan Periam, Hope, Cork co.; 2d dist. C. N. Andrews, Rockford, Winnebago co.; 3d dist. A. R. Whitney, Franklin Grove, Lee co.; 4th dist. J. H. Stewart, Quincy, Adams co.; 5th dist. W. A. Pennell, Granville, Putnam co.; 6th dist. J. O. Dent, Wenona, La Salle co.; 7th dist. M. L. Dunlap, Champaign, Champaign co.; 8th dist. O. M. Colman, Bloomington, McLean, co.; 9th dist. C. C. Sturtevant, Beardstown, Cass co.; 10th dist. J. Huggins, Woodburn, Macoupin co.; 11th dist. C. A. Montross, Centralia, Marion co.; 12th dist. Geo. Barry, Alton, Madison co.; 13th dist. T. J. Evans, South Pass, Union co.

Executive Committee, G. W. Minier, C. N. Andrews, and O. B. Galusha.

Transactions.—Arrangements were made for publishing the Transactions of 1861 and 1862, both in separate pamphlet form and in the forthcoming volume of the Transactions of the Illinois State Horticultural Society.

[We are always glad to receive reports like the above. They have more than a local interest. Every man, of course, feels a special interest in what is going on immediately around him; but no sensible man will be contented to remain in ignorance of the progress that is being made every where in a pursuit which must necessarily occupy his daily thoughts. You must be careful not to run that willow in the ground—too much, unless it *will* make good sugar. Your wag no doubt has a "sweet tooth" in his head.—ED.]

CUT-LEAVED BLACKBERRY.

BY S. D. P.

I NOTICE in your November issue a description of this new Blackberry, as it was seen in the grounds of Mr. Franklin at Riverdale. I can fully endorse all that has been said of it. My attention was first called to it several years since, grown on a trellis in the grounds of Captain Munson at Astoria. It had been then pruned to short spurs, and the whole trellis was a mass of fruit, almost hiding the leaves. The berry was nearly as large as the New Rochelle, and, to my taste, of infinitely finer flavor, being very sweet; a quality that does not belong to the New Rochelle, except under almost impossible circumstances.

I have grown the New Rochelle many

years, and in very large quantities, and have not once had furnished for my table a quart of berries which I could eat with enjoyment. If allowed to hang until it would drop in the bowl with a slight touch, it is undoubtedly fine; but there is scarcely one servant in a thousand who will not pick it after it has become perfectly black, while its acidity is yet almost enough to make the blood creep. As I have no time to do the daily picking for my family, I have been compelled to pronounce the New Rochelle unworthy of cultivation for general purposes.

After seeing the *cut-leaved* in Captain Munson's grounds, I have cultivated it largely, not only for my table use, but to form a hedge for some acres of vineyard. Its uniform sweetness, high flavor, and wonderful bearing qualities, have pleased me more and more each year. As an ornamental plant, either for a hedge or for covering walls, I value it highly. It remains green till January; its sharp prickles will pierce the thickest pantaloons; it grows rapidly even in the poorest soil, and must inevitably grow in favor, because it combines in an unusual degree ornamental and fruit-bearing qualities.

[S. B. P. is not the only one who thinks highly of the cut-leaved Blackberry. The notice in our November number is not the first one that has appeared in the HORTICULTURIST. In our volume for 1861 will be found an exceedingly fine engraving of it, with an account of its introduction, and an estimate of its value for the table and for ornamental purposes. It is a very picturesque plant, and for some ornamental purposes has no superior.—ED.]

REPORT ON GRAPES.

BY H., MUNCIE, INDIANA.

THE soil is clay, freely mixed with vegetable mould. Two years previous to planting the vines, it had been trenched two feet deep, and freely supplied with well-rotted stable dung. The spring of planting it had been again stirred two spits deep; the spring previous it had been so freely supplied with fine, well-rotted dung, that none was now deemed necessary. The vines were from Dr. Grant of Iona, and were three years planted last spring, this being their fourth summer's growth. They had been freely cut back every season, and were last spring supplied with wire trellises running east and west. The trellises are nineteen feet apart, and the vines nine feet apart on the trellis, which was not all covered. The varieties were, one vine each Catawba, Isabella, Concord, Diana, Delaware, Anna, Clinton, Herbemont, Rebecca, and Hartford Prolific.

The season was peculiar. The winter had been open and mild. None of the vines except the Herbemont, which was covered with earth, had any protection, but were all taken loose and laid on the ground. The spring opened early and fine. The summer was hardly wet, but we had hard rains so frequently, that at no time did crops suffer for rain a single day. Mildew was bad every where, and on almost every thing. In this vicinity the only grapes grown or in a bearing state, except mine, are Catawba and Isabella, with a few vines of Concord. Early in the season they were attacked with rot, and nearly all destroyed. I had no rot, but the foliage of my Isabella and foliage and fruit of my Catawba mildewed. By the time the fruit of the Isabella began fairly to color, the leaves were nearly all gone, and left the fruit hanging apparently sound. Some bunches would have a few grapes swelled to more than usual size, and ripening nice, while others were slightly colored, and others, again, entirely green; and thus they hung until frost, at which time a majority were somewhat colored, but not ripe, nor did they ever ripen. A

majority of the bunches would have a few ripe berries on, but a large majority of the berries were only colored, not ripe. Many did not even color, and thus they hung until the hard freezing destroyed them. When the berries were about half or two-thirds their size, the Catawba was attacked with mildew on leaf and berry. It did not get so bare of leaf as the Isabella, but by the time of ripening there were only scattering berries to ripen, and of those only a part ripened. Concord had but a slight appearance of mildew on leaf; none on berry, and no rot. Some bunches that lay on the ground neither rotted nor mildewed, but ripened perfectly. Diana mildewed on leaf about like Catawba, and worse on berry. Hardly had enough good fruit to judge the quality.

Delaware stood next to Concord in resisting mildew and rot, but a little later in the season had some mildew on the leaf, so as to lose about one-fourth its foliage. None on berry, and no rot, but from loss of foliage did not ripen well. Anna mildewed on both leaf and berry so bad as to destroy all the fruit. Clinton had no mildew on either fruit or foliage, but the leaf was attacked early in the season by some kind of insect that caused them to be covered with small lumps. They did not appear to affect its health in any way. Herbemont, a trifle of mildew on the leaf late in the season, but none on the berry, which ripened well, and was highly prized by all who tasted them. It is a magnificent grower. Rebecca lost nearly all its foliage early with mildew, and left the fruit hanging naked in the sun until it shriveled and burned up; but very little of it ripened. None on berry. Hartford Prolific, a very little mildew on leaf late in the season; indeed, after the fruit was ripened. This grape hung on better, and after it was fully ripe was a better grape, than I had been led to expect. Yet, after all, its hardiness and early ripening are all that would induce me to give it room. Its native aroma or foxiness is so strong that it can be smelt at a distance of twenty or thirty feet from the vine by going into the garden of an evening after the fruit begins to ripen.

I have not attempted to fix any time at which any of these varieties ripened. It is obvious that, where the foliage was so extensively occupied with mildew as many of these were, it would be useless to note the time at which they ripened, as it would necessarily be much changed. The effect of mildew was very obvious on the ripening of the wood. Not more than half the summer's growth, on an average, ripened, and in this respect there was not the difference in the varieties that there was in the extent to which they were affected. The Herbemont and Hartford Prolific ripened their wood but little better than others that were worse mildewed. I had layered four branches of the Delaware, and each one had started roots at three to five joints; but still, when the foliage died, they rotted off.

I have quite a number of vines of the newer native grapes, on nearly all of which the mildew on the leaf was quite bad; in some, as the To-Kalon and Union Village, nearly destroying the vine. Louisa and Emily seemed to entirely resist it, retaining every leaf apparently sound, and ripening the wood to the tips. These two and some others will fruit next season, and I shall watch them with a great deal of interest.

Your "Hints" on the grape were not quite in time for my older vines, and I have to work them the best I can; but those not bearing yet I am trying to manage as you direct. If you have given the distance apart that trellises running east and west should be, I have failed to notice it. Mine are nineteen and twenty feet, and I think of putting another between. Would two between make them too close?

I suppose, before you close the subject, you will give directions for making wine.

I have but a small garden in which to experiment, and have not as yet planted more than one vine of a sort of the newer kinds. Of Delaware I have one dozen, (only one in fruit,) Catawba, Isabella, and Concord four to six each. In trying them for

wine, it will be necessary to keep each separate.

Now the question is, can I make wine, (*wine*, not cordial,) of so small a quantity, so as to be any reliable indication of its wine-making qualities?

[This report is the first from your section, and we have read it with much interest. You have had difficulties to contend with, but it is manifest to us that you are on the way to success. We see you observe the connection between mildew and the ripening of the wood, which many do not. Again, if the vine is deprived of its leaves by mildew or any cause whatever, the fruit can not ripen. The time of ripening has little value unless the vines are in a normal condition. We have given the distances at which trellises should be placed. Two additional trellises would not make yours too close. Yes, we shall give the directions for making wine; and when we get you all well going, we shall be ready to "dissolve" into a "tasting society," to keep you up to a pure standard. You can very well test the wine-making qualities of your grapes as you indicate. As your vineyard is small, suppose you wash all your vines with lime water next spring *before* the buds begin to swell. We shall be glad to hear from you again.—Ed.]

THE PENN PEAR.

BY CHARLES DOWNING, NEWBURGH, N. Y.

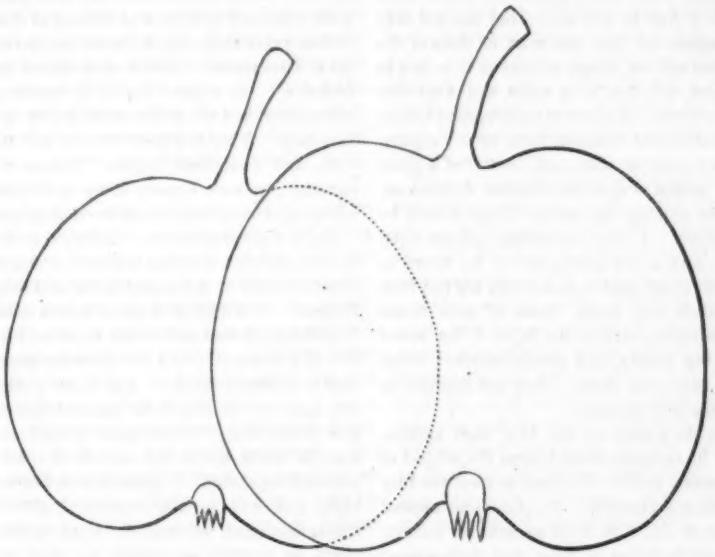
During the past two seasons specimens of the Penn Pear have been kindly sent to me from Rev. Henry Ward Beecher, J. E. Williams, Esq., of the Metropolitan Bank, New York, and the Rev. A. R. Buel, of Bordentown, New Jersey, which promises to be an acquisition to the amateur, and may also prove a valuable market fruit. As it appears to be but little known, and deserving a trial, as I think, by all lovers of good fruit, I send an outline and description of it for the Horticulturist, and also the following history by Mr. Buel:

"An old lady by the name of Mrs. Ellen Chambers, who is still living, and was brought up and lived in the Oliver family till the death of the last daughter, (some three years since, being then upwards of eighty years old,) says old Mr. John Oliver had two daughters, who lived and died in the house close to which the old tree still stands, and when these daughters were quite young, and on a visit to Burlington, ten miles below here, they brought home three pear seed, which they put in a box. One germinated. They kept it in the box for a couple of years, when they transplanted it in the garden, where it still stands, or very near the place. When the Camden and Amboy Railroad was made, the tree, being on the margin of the road, was the cause of much dispute, the railroad company threatening to destroy it, etc.; hence it was called for many years the "Railroad Fuss" pear; but being so close to the grade, it slid down a few feet, where it still remains, bearing a few pears annually, being now upwards of sixty years old. The tree being opposite the old Penn Manor, and the Penn and Oliver families being very intimate, it was thought more appropriate to call it the 'Penn Pear.'

"There are three other trees of this variety in Bordentown, which were suckers taken from the original tree about twenty-five or thirty years since. One of them is in Mr. Frazer's yard, and is sometimes called the Frazer Pear.

"It is a little remarkable that so fine a fruit should be so long overlooked and unknown, and also that it originated so near the celebrated Seckel, which is on the other side of the Delaware, but a little further down towards Philadelphia.

"The tree is vigorous, upright, and compact in form and growth, and somewhat resembles the Seckel, except that the branches are straighter. It yields abundantly every year, but every other year in excess, when the fruit is not quite so high flavored. It ripens gradually from early in October till the first week in November, and some seasons with care continues till Christmas."



THE PENN PEAR.

Frazer--Railroad Fuss—Butter.

Fruit medium, oblate, sometimes roundish oblate, angular. *Skin* pale lemon yellow, thickly sprinkled with small greyish and russet dots, and sometimes a few patches and dots of russet around the calyx. *Stalk* medium to long, rather stout, slightly inclined, a little enlarged at its insertion, sometimes by a ring in a large uneven cavity, often in a slight depression. *Calyx* open, segments rather short, erect; basin large, deep, slightly furrowed. *Flesh* white, a little coarse, very juicy, melting, with a sweet, pleasant, refreshing flavor, slightly aromatic, and a little musky perfume. "Very good." Core rather large, and a little gritty.

[We are much indebted to Mr. Downing for this history and description of the Penn Pear. All trees have a history; this one is by no means uninteresting. "Railroad Fuss" would have been an expressive name, under the circumstances, but by no means elegant or complimentary. Mr. Downing says in his letter, "I am informed that a few two year old dwarf trees of the Penn Pear can be had of a nurseryman in Bordentown, whose name I have not learned, but Mr. Buel can probably tell." Will Mr. Buel be so kind as to tell us? Two outlines are given, showing a slight variation in form. The largest outline is the usual form of the pear.—Ed.]

SIX HARDY LILIES.

BY THE EDITOR.

We have been requested by a lady subscriber to furnish a list of six hardy Lilies of easy culture. In doing this we hope to meet the wants not only of one, but of scores of our readers.

The whole Lily family is beautiful, from the modest little Lily of the Valley to the Gigantic Lily, which shoots its flower stalk 6 to 8 feet in the air. They are not only beautiful, but they are most of them of the easiest culture, simply requiring to be put in a good soil, tied to a stake, and kept free from weeds. Their easy culture, good habits, and abundant bloom fit them for the popular taste; some of them are worthy of a place in a garden of even the smallest dimensions, where nothing but choice things should be admitted. Lilium candidum, Lilium tigrinum, and a few others, are to be found in almost every garden, and others are fast finding their way there. Some of more recent introduction, such as the Japan Lilies, are of striking beauty, and greatly admired by all who have seen them. They are destined to become very popular.

To do justice to the Lily, each species, with its varieties, should form the subject of a separate article. We hope to treat the Lily in this way hereafter. At present we append a list of six, with brief remarks on culture. It must be borne in mind that those named are *species*, and that there are many *varieties* of some of them, these varieties, in many cases, being even more beautiful than the species. A single article will not admit of detail.

We place at the head of the list, 1. *Lilium lancifolium*, (speciosum.) Here it will be necessary for you to get varieties, and you can not do with less than three, though you will thereby exceed your stipulated number of six. These varieties are *album*, white; *punctatum*, white and pink; *rubrum*, blush and crimson. These Lilies are beautifully crested, and frosted, and spotted in a manner difficult to describe in few words. They are also very gracefully reflexed or recurved. The proper time to plant them is in the fall of the year, though they may be bought in pots in the spring, and turned into the ground. The tops of the bulbs should be covered four inches. They will grow in any good garden soil, but the bloom will be better and the colors brighter if a little muck or charcoal is mixed with it. Only one bulb should be planted in the same place. New bulbs will form, and at the end of three or four years they may be taken up in the fall and separated. Oftener than this is not desirable. The ground should be kept loose and mellow, and the flower stalks neatly tied to a stake. They will grow three or four feet high, and sometimes higher. Besides the varieties we have named, there are many others of great beauty, but as yet high priced.

No. 2. *Lilium eximium.* The style of this is quite different from the last, having a long, tubular flower of the purest white, and quite fragrant. It is difficult to get it true to name, Lilium longiflorum and others being sold for it. It is a beautiful and very desirable plant, and is perfectly hardy. Any good garden soil suits it. It should be planted four to five inches deep. It increases rapidly, and may be taken up at the end of the third year and separated. It grows about two feet high, and will usually support itself. If stakes are used, let them be light, and as much as possible concealed, for they are always an eyesore, to us at least.

No. 3. *Lilium atrosanguinium.* The style of this is somewhat different from either of the above, the flower being open or saucer shaped, but not recurved like No. 1. The color is a beautiful orange red, prettily blotched. This, like the last, will grow in any good garden soil. It should be planted about three inches deep, and may be taken up and divided at the end of four or five years. It grows hardly two feet high, and seldom needs support. There are many beautiful varieties, but in nearly all a great sameness of color, the primary orange red prevailing. The plant is not common yet.

No. 4. *Lilium Martagon.* This is the well-known Turk's Cap Lily, so called because of the form of the flowers. It is very pretty and desirable. The color is a rich purple. It will grow well in any light garden soil. It should be planted about four inches deep. It grows from three to four feet high. It may be taken up and divided at the end of three or four years. There are several fine varieties, some of them being double.

No. 5. *Lilium candidum.* This is the common white garden Lily, but none the less pretty for being common. It grows well in any ordinary garden soil. It should be planted in the fall, and covered about four inches. It grows about four feet high. It may be taken up and divided every three or four years. There is a double variety, but the single is very much the prettiest, besides being cheaper.

No. 6. *Lilium colchicum.* This is somewhat rare yet, but it is beautiful, and deserves a place in every garden. It has turbinate flowers, like No. 4. The color is a rich yellow, spotted. It does well in a good garden soil, but is improved if a little sand and muck are mixed with it. It grows about four feet high. It may be taken up and divided every four or five years.

We have now completed a list of six Lilies that are hardy and easily cultivated. We could just as easily have made it a dozen or more without detracting in the least from its interest; for we have left entirely unmentioned not a few of very great beauty indeed. Those we have mentioned, however, are probably the best six adapted to the popular taste and wants. They should all of them be planted in the fall of the year; the earlier the better. When the bulbs are taken up to be divided, this should also be done in the fall. By a good garden soil is meant a light, rich loam. Where sand and muck or charcoal dust are to be added, (and they can *always* be added beneficially,) a spadeful of each incorporated with the soil immediately around the bulb, will be sufficient. No coarse manure should ever come in contact with these bulbs. When used, it should be old, well decayed, and mixed with the soil. If the soil is stiff and clayey, it should be made light by the addition of sand, charcoal dust, decayed leaves, etc.

There are special means of culture, looking to a higher order of results, which we may refer to hereafter, for the benefit of those who can give the time and attention needed to enhance the bloom and beauty of these already beautiful objects. The directions already given, however, are all that are necessary to grow these Lilies in much perfection. Our favorite mode of growing them is in masses in beds. Any one who will grow them in this way in beds specially prepared for them, will be likely to exclaim, when he sees them in their full perfection, "Behold the Lilies, how they grow! Solomon in all his glory was not arrayed like one of these!"

DWARF PEARS.

BY WILLIAM BACON, RICHMOND, MASS.

It is now ten years since we commenced the culture of the Pear as a dwarf on the quince. At that time much was said to discourage the idea of success in the business, and since then there has not probably a year passed but that this method of fruit growing has been eulogized by its friends and anathematized by its enemies.

We have patiently heard and read the arguments in the case on both sides of the question, all along during these ten years, and, like a Dutch justice of olden time, who, as the story runs, in a certain trial gave "both sides the case," we suppose both may be right in their experience, (we do not say practice.) Yet, while the aforesaid justice concluded the constable should pay the cost, we fall back on our individual experience, and say that, with us, the trees have paid all costs, including expense of themselves, land

rent, preparation of soil, after culture, indeed all the care bestowed upon them a hundred fold, and promise, if we do fairly by them, nothing more, to continue their remunerative labors for years to come.

Since our dwarfs were set out we have had many severe winters. At that time, the Peach and Cherry were doing well. We had fine crops of Peaches until 1855. The following winter was so severe as to greatly injure them, and that of 1856 completely destroyed them.

The winter of 1860–61 will long be remembered for its sudden changes of temperature, and the extremes incident to those changes. Cherry trees were in many instances killed, and in nearly all so debilitated that many of them never recovered from the shock. In some localities Apple trees suffered, and we knew instances where our native forest trees found the shock too great for them. Some of our dwarfs suffered in their young wood from the vicissitudes of these winters, but none of them were lost. Not so with our standard trees. A small percentage of them were killed beyond the resuscitating influence of spring. So we conclude, that in the matter of hardiness they are fully equal to standard trees, and, indeed, to any of our most hardy fruit trees.

That we have suffered some losses in these trees we admit. If we were to commence their culture with our present experience in the matter, we feel confident we could save nine-tenths of such losses. We had some varieties that do not succeed well on the quince; these, of course, failed. Another error we committed was, in not setting some of our trees deep enough. In our present or future practice, we hold it important to bury the quince stock entirely, and a portion of the pear, that roots may be thrown out by the latter. We came near losing a fine Napoleon by a partial failure of the quince, but, on examination, we found a few fibers started from the pear. The tree was taken up and a new setting given, burying the pear still deeper, and now it is a fine, thrifty tree. And here we find an objection to many of the dwarfs brought into market. They are grafted so high on the quince that a long, unsightly shank of the stock is found between the roots and the graft, and to set them so low as to have a proper portion of the pear covered, would be placing the roots further down than the ordinary working of most soils would warrant, and much deeper than the roots of any young tree should be set. Nurserymen should work their stocks lower, even if they charge more for doing it, and purchasers should reject all trees that are not worked near the ground.

Our dwarfs have not been troubled with the borer at all. The only insect we have had to contend with was the bark louse, which planted themselves upon our trees so as almost to cover the bark. The remedy we applied was summary and effective. The trees were thoroughly scraped with a dull knife, care being used not to injure the bark; and after this the trees were thoroughly washed with a strong ley, which seemed to neutralize the poison deposited in the bark by the louse, and restore the tree to healthfulness.

From our own experience we do not consider dwarf pear culture a failure, or by any means a humbug. It may not succeed in every soil, or in all localities. There is no crop, not even the most common one, that will; and in order to be successful in growing any tree or plant, we must adapt the soil, if nature has not done it, to the nature and habits of that plant, no matter how simple the habits of the plant may be. A burdock or a thistle, we are all aware, will grow in almost any dry soil, yet who has not seen that they are much more luxuriant in one that is deep and fertile; so with dwarf and other trees. They will starve and die in the very soils which, if duly prepared, would give them health and vigor. The trees are not to blame for this, neither are the nurserymen who propagated them. Nor is the fact that they are dwarfed on the quince, with many varieties, any obstacle to their success, but, on the contrary, it is an improvement in the quality of the

fruit; the trees early come to maturity, and, as far as our experience goes, are as hardy as standards, and, what is a consideration of no small account, the trees are mainly so low that worms' nests are easily destroyed, and the fruit can always be gathered by hand without the risk of high climbing, while at the same time it is less likely to be blown from the trees by the high winds to which nearly all our country is subject.

[Mr. Bacon's excellent article comes to hand very opportunely. Read in connection with our leader, it will be a great encouragement to those about to plant Dwarf Pears. Thus, without knowing it, he has materially aided our efforts, his article having come to hand just as we had completed our own. We have lately had so many inquiries in regard to Pear culture, that we have determined to furnish our "Hints" faster than we originally contemplated. The subject has been too much neglected of late. If your standard Pears had been branched low down, do you think they would have sustained as much injury as they did? We endorse heartily all you say about working dwarf pears too high. It is in some respects a serious evil. We agree with you, too, that when dwarf pears fail, it is not always the fault of the trees.—Ed.]

CIRCULATION OF THE SAP.

BY B. A., PASSAIC, N. J.

This paper in your last number suggests a fact with which some of your readers may not be acquainted.

Cover the lower end of a tube, water tight, with a piece of bladder or other membrane. Fill the tube partially with a dense liquid, as sugar and water. Place the tube upright into clear water, or into water with less sugar. The denser liquid will draw the lighter liquid into the tube, and it will gradually rise until it will run over the top. This is called *endosmosis*, or going within. If the denser liquid be outside, it will draw the lighter liquid out of the tube. This is called *exosmosis*, or going out.

A plant is a collection of tubes. Each minute tube is divided into a succession of cells, by membranous diaphragms. The evaporation from the upper part of the plant renders the upper part of the sap more dense than the lower. Endosmosis causes the sap to pass each diaphragm in succession, as it rises towards the top of the plant against the force of gravity. The sap is kept in its regular channel by the walls of the tube. Some physiologists maintain that each leaf has its own distinct tube from the root.

[B. A., being a man of science, likes to account for facts on scientific principles, in which we agree with him. The above theory accounts for the rise of the sap in a satisfactory manner. If we remember rightly, it is the theory advocated by Jussieu, and, according to our apprehension, it is strictly philosophical. We have other articles on the subject, one of them being from Mr. Taylor, which will appear in our next.—Ed.]

HALE'S EARLY PEACH.

BY A. G. HANFORD, COLUMBUS, OHIO.

A fine early variety, originated by a German at Randolph, Portage Co., Ohio. It was first brought to notice by Mr. Hale, a nurseryman of Summit Co., who introduced it as Hale's Early German. Subsequently the "German" was dropped from the name.

In the spring of 1859 it was sent out from the Columbus Nursery. Prior to this it had been placed in the hands of a few amateurs and others for trial, and had been moderately disseminated in the vicinity where it originated. The past season we have had reports from these trees, uniformly sustaining its high character.

It is a white-fleshed, free stone peach, rather larger than Serrate Early York, ripening seven to ten days earlier. Its color, form, and quality more like George the Fourth. Fruit always fair. The tree is a remarkably handsome, vigorous grower, hardy and healthy. Its productiveness remains yet to be fully established. An orchardist near Chillicothe, who has about two acres of Hale's Early, reports a portion of his trees as bearing very full. Others speak of moderate, even crops. The trees are all young yet, and it is too soon to expect a large yield.

[This Peach we have not seen. We are obliged to you for an account of it. We have just received another from Dr. Taylor.—Ed.]

THE FLEMISH BEAUTY PEAR

BY A. G. HANFORD, COLUMBUS, OHIO.

During a visit to Waukegan, Ill., we were much pleased with the appearance of the Pear trees on the grounds of Mr. Robert Douglas. The history of one, a Flemish Beauty, I send you. It was planted in the spring of 1852, then two years from the bud, commenced bearing the third or fourth year, and has yielded well every season since except the past.

In 1860 it produced twelve baskets of fruit, which sold for thirty dollars; in 1861 fifteen baskets, for which thirty dollars was again realized. The past season the tree was injured by a tornado, nearly half its top broken off, and most of the fruit blown from the unbroken parts; three baskets of very fine fruit were, however, gathered from the lower limbs, fifty pears filling a basket. The tree is now full of promise for next year. Two other trees of the same variety, but smaller, standing near this, have done quite as well in proportion to their size, together giving nine baskets the past season.

The Flemish Beauty is a favorite in the Northwest, seemingly as much at home as the Burr Oak, enduring the severest winters uninjured.

We have noticed lately that it is recommended by some of our Eastern friends to be grown on the quince. One eminent horticulturist is *reported* to have said, at a meeting of the Brooklyn Horticultural Society, that the Flemish Beauty should be grown only on the Quince. Our experience with this variety would lead us to advise its culture *only on the pear.* It is true, it sometimes does well on the quince, but it more frequently fails; and then it comes into bearing so soon on its own root, there is little need to dwarf it.

[Some horticulturists about here recommend the Flemish Beauty to be grown on the quince, because they find it, when carefully worked, to succeed well. Many of the finest specimens of this pear that we have seen were grown on the quince. The gentleman alluded to probably did not state the case so broadly, though we know he strongly recommends the Flemish Beauty to be grown on the quince; and his own trees, and others about here, would seem to warrant him in so doing. We think the Flemish Beauty will succeed better on the quince than is generally supposed. It is quite true, however, that, except for gardens, there is no special necessity for dwarfing such kinds as come early into bearing, unless the size and quality of the fruit are improved thereby, which is the case with some. What is your experience in regard to other kinds on the quince?—Ed.]

EDITOR'S TABLE.

To Contributors and Others.—Communications, Letters, Catalogues, Periodicals, Remittances, Packages by Express, Advertisements, &c., should be directed to Mead & Woodward, Editors and Proprietors, 37 Park Row, New York. Exchanges should be addressed to "The Horticulturist."

We are very much crowded this month, and consequently compelled to omit some of our best articles. They are good enough not to spoil by keeping.

To Subscribers.—In answer to many inquiries, we will state that any of the following volumes, 1854, 1855, 1856, 1857, and 1860, 1861, 1862, unbound, can always be counted in clubs. In making up clubs, therefore, four copies, one year, $6 00, and eight copies $10 00, the magazine for any of these years can be reckoned in with the present year. If the volumes are bound, 50 cents additional must be added. The postage on unbound volumes is 18 cents, (for 1863, 12 cents,) on bound volumes, 40 cents each. If any member of Clubs already sent in desires any of these back volumes, he will be furnished at the club price, as additions to clubs at the club rate is our rule. Those who have subscribed for 1863 are entitled to the balance of our seven dollar set, 1860, 1861, and 1862, all bound, on remitting five dollars. These contain the whole series of articles on Grape Culture, Landscape Adornment, etc. The club rate of $1 25 per copy for clubs of eight, will be discontinued after the 1st of March, 1863. After that date the lowest club rate will be $1 50 in clubs of four or more. We can furnish six sets, from 1854 to 1863 inclusive, being volumes IX. to XVIII., ten volumes in all, for $12 50, unbound, or $17 50 bound. Two sets of ten volumes, bound and slightly shelf worn, for $13. All the volumes are bound alike, and present a uniform appearance on the library shelf. Covers for binding for 1862 and for former years, sent post paid on receipt of 30 cents each. We prefer Treasury notes, Postal currency, and new three cent stamps—no corporation shinplasters.

Correction.—In El Medico's last article, Rogers's Hybrid No. 17 should read, Rogers's Hybrid No. 19. It will be important for the reader to bear this in mind.

Nursery of the late Mr. Reid.—We are very glad to learn, by our advertising columns, that the business of the late Mr. Reid, of Elizabeth, N. J., is to be continued permanently. The suppression of such an admirable nursery, with its large and valuable stock of choice trees and plants, would have been a serious loss to the community. The nursery will hereafter be conducted by Mr. David D. Buchanan, (Mr. Reid's son-in-law,) whose previous knowledge of the business well fits him for the position. We are familiar with Mr. Buchanan's promptness and integrity, and have no doubt that the high reputation of the Elizabeth Nursery will be fully maintained under his superintendence.

Tagliabeau's Thermometers.—We often have inquiries from gardeners and others for reliable thermometers. We have latterly used Tagliabeau's, which are of excellent workmanship and the utmost reliability, the latter quality being all-important, and often wanting in ordinary thermometers. We lately got one of him of great delicacy and beauty, being graded to quarter degrees. His self-registering thermometers are much

the best we have used, and are those which we generally recommend. No gardener, at least, should be without a good self-registering thermometer.

THE RURAL ANNUAL FOR 1863.—This is a useful little compilation for the farmer and gardener, containing articles relating to the orchard, the cultivation of Hops, the management of manures, small fruits, cheap cottages and farm houses, and many other subjects. It is published by Joseph Harris, at the office of the *Genesee Farmer*, Rochester, N. Y. The price is twenty-five cents.

DEATH OF DR. BRINCKLE.—We are pained to learn of the death of this distinguished horticulturist. He had been in feeble health for a long time, and his friends were not unprepared to hear of his death at any moment. We had known and corresponded with him for many years. He was a man of deep refinement, very amiable, learned in his profession, a most devoted and zealous amateur horticulturist, and beloved by a large circle of friends. His life was eminently a useful one. He took a prominent part in the proceedings of the Pennsylvania Horticultural Society, and was a leading member of the American Pomological Society. Of the former he was at one time President, and of the latter a Vice-President. Horticulture was much indebted to Dr. Brincklé, and will give him a chief place among those whose memories she preserves.

RUST ON VERBENAS.—We regret to learn that this disease is very prevalent this winter, many large growers having already lost most of their stock. It is a matter of grave importance. We should be glad to have Mr. Henderson, Mr. Snow, Mr. Dingwall, and other large growers, give us their experience in this matter, and the best mode of treating the case. If it continues to spread, Verbena beds will soon become a rare sight.

A NEW SEED STORE.—We learn that Messrs. Fleming and Davidson have opened a new seed store at No. 67 Nassau Street, N. Y. The former has been for several years with Mayor Van Vorst, of Jersey City, and the latter quite as long with R. L. Stuart, Esq., of this city. They have both attained a worthy place in their profession, being well known as skillful gardeners. The same integrity and application will no doubt secure for them success in their new vocation.

H. B. Lum, Sandusky, Ohio.—Illustrated Catalogue of Flower Seeds, Cuttings, etc., containing all the best novelties, which may be safely sent by mail.

CORRESPONDENCE.

YORKVILLE, Jan. 13, 1863.

PETER B. MEAD, Esq.—*Dear Sir:*—I inclose a transcript from a letter lately received from my brother, Mr. Thomas Hogg, dated Kanagawa, Japan, Oct. 28, 1862, which may be of interest to some of your readers.

He arrived out from San Francisco on the 22d of August last, after a very stormy and disagreeable passage of fifty-four days.

I am this day in receipt of another letter, dated Nov. 10, 1862, informing me of the shipment of the first instalment of his collections, which of course embraces many valuable novelties. Among them are Abies firma, which he writes is the same as A. bifida, the latter being the form it assumes in its younger growth; Abies Veitchiana, and Tsuga; Sciadopitys verticillata, Pinus Koraiensis, Picea pichta, two new species of Larix, five new varieties or species of Retinospora, besides R. pisifera and squamosa, Thuja Nutkaensis, (?) of a drooping habit, very similar to the one we have as Thuja plicata, or Nutkaensis; Thuja Japonica, which bears some resemblance to T. Sinensis, but is of a denser habit, more like T. aurea; three new species of Magnolia, Stuartia monadelphia, Styrax obassia and S. Japonica, Planear

acuminata, four varieties of Persimmons, some new and beautiful Iris, etc., etc.

He is in good health and spirits, and highly delighted with the vegetation and floricultural products of the country. He has already formed some acquaintance with some of the native gardeners, and enlisted them in his service in procuring or obtaining new and rare things for him. Some of the seeds now on the way, were collected for him at Fusi Yama, by a Japanese gardener. I remain yours respectfully,

JAMES HOGG.

Extracts from Letter of Mr. Thomas Hogg.

"The few days of my visit to Yedo did not afford me much of an opportunity of seeing the country. Not having a horse, I went up in a boat, and my time during the visit, when not at home, was mostly occupied riding about the city. I had proposed riding out to see some of the gardens, but other visitors came up while I was there who were more interested in the city than the country, so that my visits to the gardens were necessarily deferred until another time.

"I had one ride a short distance in the country, and was highly delighted with the novelty of the vegetation around me, and at the same time recognized many familiar things that made me feel quite at home. Cryptomerias are very abundant, and are systematically planted for their timber. Camellias, Azaleas, Salisburias, Euonymus, Wistarias, Hydrangeas, Podocarpus, Deutzias, etc., are all very common, as also many exotic plants that I was surprised to find. In the garden of the temple of Osacksa, one of the largest temples in the place, I found growing in pots quite a lot of things such as we cultivate: Ixoras, Vincas, Asclepias, Orchids, (some with variegated leaves,) Gardenias, (G. radicans, with beautifully variegated foliage,) and other things, the names of which I do not now remember.

"The Tycoon's residence is in the center of the city, and is surrounded by a wide moat, embankments, and walls, as occasion renders necessary. The moat surrounds it entirely, and in some places is covered with blue and scarlet Nelumbiums and Nympheas, and other beautiful aquatics. In some places the embankments are very high and finely turfed, and present a fine appearance. Surrounding the imperial residence are the residences of the Dai-mios, looking like long rows of barracks or prisons. The only interesting part of them are the gateways, which are sometimes very massive, and not devoid of architectural beauty.

"Outside of the streets occupied by the Dai-mios, which form quite a city of themselves, live the people generally; and such a mixture of shanties, shops of all kinds, from corner groceries to silk stores, tea houses, soldiers, beggars, dogs, and unclean smells, you never witnessed or experienced. The streets are narrow, and mostly unpaved, or rudely covered with small stones, so that in wet weather they are rather muddy.

"The people generally are very cleanly, and certainly affect a Spartan simplicity in their dress and mode of life, especially the coolies or laborers, who in warm weather usually content themselves with a breech cloth, after the manner of Sandwich Islanders in the olden time. Occasionally, and not uncommonly, they put over their bodies, more particularly their backs and shoulders, a light summer dress, (which also serves for an under garment in the winter,) composed of tattoo of elaborate pattern, warranted not to fade either by washing or exposure to the sun.

"On my return from Yedo, I came by what might be termed the shore road, following the bay. It is quite level nearly all the way, and thickly inhabited. The land is swampy, and nearly all cultivated in rice, of which immense quantities are grown of a very superior quality. The flat lands extend to the distance of about half a mile from the bay, when the ground becomes suddenly elevated. On this high land there is another road to Yedo, called the country road, which is said to be very beautiful.

"The roads about here are mostly simple paths, only sufficient for traveling singly; but the most disagreeable feature is the abominable smell arising from the manure, which is

saved from every dwelling, and carried about the country in open tubs.

"Their vegetables are generally very inferior; and as yet you see but little improvement produced by the large quantities of seeds that have been distributed. A small variety of the Egg Plant is grown largely. Potatoes, and Sweet Potatoes, a long White Turnip, (about as long as a Parsnip,) and others are extensively cultivated, but inferior to those you have. Potatoes are not bad flavored, but are small; the finest come from Hakodadi. There is a Squash grown here that is very fine, and really worthy of notice.

"The variety of fruits is very limited. Watermelons were plentiful in their season, and Peaches were in moderate quantity and of good size. Both looked as if they would be very good, had they been allowed to mature before picking, but the Japanese have an inveterate custom of picking and eating fruits while quite green. Grapes are also very good, and are quite distinct from our native varieties in not having downy leaves. They are about the same color as the Diana, with a loose bunch similar to the Catawba, and of a sweet, pleasant flavor, with very little acidity in the skin. I think it will prove a valuable addition to our list of fruits.

"The peculiar and characteristic fruit of the country is the Persimmon; not like the notable fruit of that name, known in North Carolina for feeding very hungry folks; but, like many other things here, entirely the reverse of what it is with us. It is a substantial looking fruit, yellow when ripe, as large as a medium sized orange, with a delicious sub-acid pulp, eaten with a spoon.

"No longer let Persimmons be a by-word of all that is distasteful and puckery; but let it have an honorable place among the fruits of the earth suitable for man. The tree is very ornamental when laden with fruit. It is as far different from our Persimmon as a Bartlett Pear is different from a choke Pear.

"Coming here so late in the season, I have not had the gratification of seeing many native plants in flower, and must wait another year for that pleasure. The variegated foliage plants, seemingly so peculiar to the country, are really wonderful; even plants not natives of the country partake of the general tendency in that direction.

"The number of native plants with variegated leaves is surprising. Camellias, Aucubas, several forms; Ardisias in a great variety of ornamental foliage; Podocarpus, Osmanthus, Eurya, Serissa, Junipers, Farfugium grande, silver-edged; Cryptomerias, Retinosporas, Kadsuras, Cleyera, Corchorus, Rhyncospermum, Viburnum, Ligustrum, Thujiopsis, etc.

"There is a Russian Botanist (Mr. Macimovitch) now here making a collection of living and dried plants for a Society in St. Petersburgh. He has been in the country three years, and is now about returning home by the way of Nagasaki. He has been very industrious, and has procured many valuable things. I frequently call upon him, and find him very communicative, and have obtained much valuable information from him."

[The above extracts will be read by Mr. Hogg's numerous friends with much interest. Aside from the deep personal regard we entertain for Mr. Hogg, we experienced no small degree of pleasure when we heard of his determination to go to Japan. We knew that he possessed knowledge, enthusiasm, and perseverance to a degree that eminently fitted him for a collector of plants, and we have no idea that we shall be disappointed in our expectations that he will add very materially to the richness and variety of our collections. These extracts give the reader a good idea of his industry. Nothing that is really good will be likely to escape his eye. This communication reaches us just as we are making up our last form; but we omit other matter to make room for it, and reserve comment for a future occasion.—Ed.]

Peter B. Mead, Esq.:—*Dear Sir*,—As a beginner in the cultivation of fruits, I have read the Horticulturist for the past year, and the spirit (of love for that pursuit) moves me to acknowledge the gratification I have felt with the ability and discretion with which

it is conducted. By discretion, I mean the care which you show in refusing to recommend any new fruit until you are certain of its merits. This editorial virtue can not, in my judgment, be too highly commended. The most vexatious of all trials is to read some fulsome puff of a new fruit, purchase it at a high price, cultivate it two or three years or more with great pains, and then find it worthless. There is no protection from this very prevalent and increasing kind of imposition, except the reading of some reliable Horticultural publication, which stubbornly refuses to puff a fruit until its excellence has been fully established by actual experience.

I was very favorably impressed with the good sense of Mr. Bacon's article on Orchard Culture in the December number. I see you do not agree with him in regard to cultivation after the trees are set. Experience in this section has shown that there is a good deal of truth in what Mr. Bacon says. We have some extremely cold weather here every winter; the thermometer sinks to between 20 and 30 degrees below zero. If trees make a very large growth, they are very apt to be winter killed, on our rich soils. Cultivation is sure to produce this growth; hence the value of stocking down to check the growth within moderate limits. If stocking down should *stop* the growth, it would, of course, injure or destroy the orchard; but all that is desirable or safe is a moderate growth of well-ripened wood; and on our rich soils here trees will make enough growth if the land is seeded down. I think you state it too strongly, when you say, young orchards ought *always* to be cultivated. You seem to think the apple tree is so hardy, that there is no danger from a too luxuriant growth. This is a mistake; there are many kinds of old standard apples which are hardy and productive at the East, that are certainly destroyed by our winter; among them are the Rhode Island Greening, Spitzenburg, and others. If an orchard is stocked down, and does not make a good healthy growth, top dressing, as stated by Mr. Bacon, is a sure remedy.

What do you think of Mr. Phin's book on Grape Culture? In one number you acknowledge the receipt of it, and promise a review, but have neglected to give it. I am anxious to know what you think of it. I sent for a copy a short time ago, and expected to acquire from it all the information I desired about the mode of propagating, culture, qualities, time of ripening, and the peculiarities of all our native grapes, about which so much is being said; but what was my surprise to find that the author knew absolutely nothing about them, or, if he does, has failed "to make any sign in his book," of such knowledge. It is true, he describes several elaborate modes of training vines in Europe and in graperies, but are they adapted to the out-door culture of your natives? has the author tried any of them, and which is the best? The book gives no response to these questions. I want to propagate some vines by layering. The mode is hardly alluded to.

But my disgust was complete when I read the chapter on varieties. So far as we can know from the book, Mr. Phin has never seen any of the natives, except the Isabella, which he recommends as the grape *par excellence* for general cultivation; and estimates that it will be well enough "*to try a vine of the Delaware by way of experiment.*" All his descriptions of varieties are borrowed. Is not the book "a big bit of a humbug?"

The Report by Pratiquer is admirable; it is worth the price of the volume. If we could have more such reports on fruits by intelligent cultivators, it would add, for new beginners like myself, almost incalculable value to the HORTICULTURIST. By-the-way, why could you not, Mr. Editor, have given us a little definite information of the new fruits, time of ripening, etc., which you saw at Newburgh Bay? We should have been grateful for it.

Yours truly, INQUIRER.

Southern Wisconsin, Dec., 1862.

[We thank you heartily for your appreciation of our labors. Such commendations will stimulate us to further efforts to make the HORTICULTURIST still more useful and reliable. Our "editorial virtue" we shall strive above all things to keep pure.—Mr. Bacon's

article is certainly an excellent one. If you read our remarks again carefully, you will see that we do not differ very widely from Mr. Bacon. In penning our remarks, we had in view Mr. Bacon's section of country, (New England,) where we find prevalent a great neglect of orchards, which we have often heard excused on the plea that nature never cultivates trees; and we had no idea that Mr. Bacon should fall into the hands of these men, if we could help it; hence the pertinence of our closing sentence. We admitted, however, in our remarks, all the danger you impute to a too luxuriant growth. We have a number of times stated our conviction that your rich Western soils are much concerned in the winter killing of your fruit trees. It is just as you state it: the growth is so luxuriant that the wood ripens imperfectly, and is consequently winter killed. How to prevent this is the question. As we wish our readers to understand fully our views on Orchard culture, we will give a summary of them in our next issue. We have not half room enough for our correspondents even this month.—We had partly determined to defer a review of Mr. Phin's book until we had completed our own grape articles, simply, however, on the score of delicacy. Mr. Phin has by no means exhausted the subject. His chapter on varieties is exceedingly unsatisfactory. We shall hereafter speak of the merits as well as the faults of the book.—Pratiquer reads the Horticulturist, and practices what he learns. We are forming a regiment of such, with Pratiquer for Colonel.—We have had in type for two months several pages of matter relating to the fruits at Newburgh and elsewhere; but our printer "don't get it in."—Ed.]

Messrs. Editors,—A sentence in the lively article of El Medico, in your last number, recalls to me a duty that has been some time in my mind, in reference to the Coleman's White grape. The grape which they have at Cincinnati, and which has been distributed from there under that name, is not the Coleman's White, but the Cuyahoga. Esqr. Coleman told me that the cuttings he sent to Mr. Longworth were not from his own vine, but from the vine of Mr. Wemple, which was the original Cuyahoga; and that, when he found that Mr. Longworth was calling it the Coleman's White, he either verbally or by letter protested against it. The true Coleman's White has not been disseminated out of this vicinity except by myself, and that to a very limited extent for the last two seasons. It is a larger berry, darker color, thicker skin, tougher pulp, and much stronger native aroma; more like the few specimens I have seen of the Cassiday, which probably were not a fair sample of that variety. I do not consider it of any special value, unless it should prove of some value for wine.

A word to El Medico. Are you sure your Diana is *true?* Around Cincinnati there is a variety called Diana, now generally called Werk's Diana, which I am fully persuaded is not *true*, and by which, by-the-by, I have been pretty badly *bitten*, and which you were still inclined to think a year ago was the true. The true Diana I think very variable; this season I thought mine almost equal to the Delaware; last season I thought them hardly second rate. But enough.

Yours very truly, Edwd. Taylor.

[We have had intimations from other quarters that the Cuyahoga was being sold at Cincinnati and elsewhere for Coleman's White, but these intimations have assumed no definite shape until now. The dissemination of a grape under a wrong name should not be persisted in, even though, as in this case, the substitute should be the better grape of the two. Our friends at Cincinnati, who are noted for their carefulness, should give this matter a thorough sifting.—Ed.

PRESIDENT WILDER'S ADDRESS.

Concluded from page 40.

The cultivation of fruits, as a science, is one of the most interesting and delightful that has ever occupied the attention of man. It furnishes an endless variety of

objects for contemplation, constantly exciting his wonder, and leading forth his soul in admiration of the providence, wisdom and goodness of that Almighty Hand, which bespangles the heavens with radiant orbs, and carpets the earth with living gems no less brilliant or wonderful. Whether we study the canopy above, or the carpet beneath, we are filled with admiration at the order and infinitude of His works,

"A world of beauties that throughout their frame,
Creation's proudest miracles proclaim."

The more, therefore, we instil into the minds of our youth the love of our delightful art, the more will they appreciate the wisdom, beauty, and perfection of the external world, and the more will their souls become invested with that purity and refinement which enlarges the sphere of social happiness, and elevates the mind to contemplate with reverence and delight that Infinite Source,

"Which sends Nature forth the daughter of the skies,
To dwell on earth and charm all human eyes."

When our work on earth is finished, how precious the monuments which this art rears to perpetuate our memories! It was the custom of some of the ancients to bury their dead under trees, so that future generations might sit over their graves screened from the parching heat, and to dedicate fruits and flowers to distinguished men.

What an honorable testimonial to have a luscious fruit dedicated to your memory—a fruit which shall bear the name not only of yourself, but of your family long after you shall have been buried beneath the sods of the valley! How transporting the thought, that future generations will sit under the cooling shade of the tree reared by your own hand, and regale themselves with its precious fruit! Think you not they will shed the tear of gratitude, and bless the hand that planted it! How chastening the anticipation, that when we shall have been gathered to our fathers, and these frail tenements are consigned to the bosom of our mother earth, the particles of our bodies shall be regenerated and reappear in the more beautiful forms of fruit or flower, and shall thus minister to the comfort of generations to come. Oh! let me be remembered in some beautiful flower, some graceful tree, some luscious fruit. Oh! yes, far better than storied monument or sculptured urn, let me be remembered as one who labored to adorn and improve the earth, to promote the pleasure and welfare of those who are to follow me.

In creation there is a wonderful fitness between the native instinct of man and the object of his attachment. Thus God gave us trees adorned with inimitable beauty, "pleasant to the sight and good for food." Thus we have the tree of knowledge and the tree of life, symbolic sacraments of the patriarchal Church. Witness the inherent love of these in Abraham, when he said, "Let us have all the trees that are in the field, and that are round about;" in Solomon, planting orchards and vineyards, and classing these pursuits "among the delights of the sons of men;" in our immortal Washington, retiring from public life to sit beneath the shades of Mount Vernon; in Rousseau, longing to be laid under his own favorite tree; in Temple, directing that his heart should be buried beneath the trees of his own planting; and in the untutored Indian, who, beholding a tree of his native land, sprang forward with one joyous bound, exclaiming, "O tree of my home, welcome to my heart." So does the human soul sympathize with the objects of nature.

CONCLUSION.

GENTLEMEN: It has been my desire, and my custom, on these occasions, to confine my remarks to subjects strictly connected with the objects of our Association, to unite my rejoicings with yours in the progress of the past, and to look forward with cheering hopes to the future of our favorite art. But this calling, our homes, our institutions, and all we hold dear and sacred on earth, are so involved in the civil conflict in which our country is now engaged, as to demand, in conclusion, a passing notice.

Accustomed as we have been, for half a

century, to the enjoyment of uninterrupted peace with transatlantic powers, to the contemplation of the prosperity and rising greatness of our Republic, and to the belief that the very name of war was fast becoming obsolete, we find it impossible to comprehend the gigantic proportions and ulterior influences of that dreadful evil which is upon us, and which has taken from the peaceful pursuits of active life two millions of our fellow-citizens, and plunged them into the most dreadful and bloody conflict, which has suddenly, as by the stamp of Ajax's foot, raised up a Navy second to no other on earth, and which has concentrated the astonishing improvements of the last half century in machinery and progressive science for the relief of human toil and the happiness of man, into the single art of his destruction by war.

At a crisis so momentous and fearful, involving our existence as an independent and united people, and our relation to every other nation under heaven, our paramount duty is plain. We must support with all our means that good government which the patriotism and wisdom of our fathers established, and which, after every effort to avert the evil, is compelled to robe even her white-winged messenger of peace in the fiery habiliments of war for the preservation of the Republic and the enforcement of its laws. We must hold on to the Constitution as the very palladium of our liberties, and the sheet anchor of our hope. We must frown upon every attempt at insubordination and fanaticism to invade our rights, and having done all, we must stand by the flag of our Union. Yes, stand by those glorious stars and stripes, which, for more than fourscore years, have waved over the land of our birth, and the cradles of our infancy. Stand by this flag, whose every thread is luminous with the history of our Nation's greatness. Stand by that flag, which has floated in the breeze of every sea and clime. Stand by that flag, the harbinger of civilization, and the herald of salvation to the distant isles of the sea. Stand by it, as the emblem all that is great and good in the history of the past, or the dearest hopes of the future. Stand by the flag of our Union, in prosperity and in adversity, in life and in death—here and every where—now and forever.

The cloud that overshadows is indeed dark and foreboding, yet we trust it will retire gilded with the bow of promise, and radiant with the hope of a brighter to-morrow. We believe that He who rules in mercy as well as in justice, will in the end bring our beloved nation out of all its troubles, and make us a wiser and better people; that He will yet make us one in interest and destiny, a people whose love of self-government, union, and strength, shall, in the future as in the past, be the wonder and admiration of the world. Terrible as this crisis is, we doubt not that the progress of this great Republic is to be onward and upward in the cause of freedom, civilization, and humanity, and in all that tends to the development of the comfort, happiness, and perfection of the human race. Yes, we fondly cling to the hope that the day is coming yet, when war shall wash his bloody hand and sheath his glittering sword; when our fields shall no longer be plowed with the deadly cannon, or fertilized with the blood of our brethren; and when peace shall again wreath her olive leaves around these distracted States, and bind them together in one great circle of life and love. The night is dark, but the morning cometh. That golden age is "coming yet."

> "Its coming yet for a' that,
> When man to man the warld o'er,
> Shall brothers be for a' that."

To this delightful result our chosen art is to contribute its full share; and when it shall have accomplished its whole mission on earth, our orchards and gardens will be crowned with the choicest fruits of Pomona, our hill-sides rejoice in the rich burden of the vintage, and man at last, as at first, enjoy the fruition of Paradise on earth.